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UNITED STATES PROVISIONAL PATENT APPLICATION

FOR

USER INTERFACES FOR INTERACTIVE TELEVISION

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John Thompson 10/17/2001  
Date

Figures 1-24 illustrate various embodiments of user interfaces for interactive television (ITV).

### **Figures 1-5**

Figures 1-5 illustrate a small functional orb that appears on the bottom right of the screen (or other location) when a button, such as a menu button, is pressed. In certain embodiments, the orb may display an MSO (cable operator) logo that waves in and disappears. The orb may open when an "OK" button or the like is selected on the remote control.

Once selected, the orb opens to reveal all the choices available via the ITV service, including ITV and broadcast channels. The choices may be displayed in a "filmstrip" arrangement, e.g., a continuous series of icons, images, or the like, which the user can scroll up or down (left or right). In one embodiment, the user can surf through the channels by selecting the cursor up or down buttons or the like. Preferably, the focus does not move. Rather, the channels underneath cycle in a loop.

The longer the cursor is held down the faster the channels move, allowing the user to move quickly through all the channels that are offered. When a user selects a channel, the orb animates by closing and moves off the screen. The selected channel then appears.

If the user were to bring up the orb and move through the channels and delay on an interactive channel, the icon may rotate to the left giving the user an option to select another choice. This choice may be a ticker for the interactive

channel. For instance if the user moved through interactive channels and were over the ITV channel sports, a delay on that icon would cause the icon to rotate 180 degrees to display another option. This option may be an icon for a sports ticker. If the user selects the sports ticker, the orb moves off the screen and a sports ticker would be displayed at the lower third of the screen (or other suitable location). At any time, a user has full control to bring up the orb. The orb may overlay the television broadcast, but does not completely cover it up.

#### **Figures 6-14**

The user interface shown in Figures 6-14 focuses around an abstract, expanding 'dingbat', also known as a 'bot'. The 'bot' consists of simple 3-D graphic elements which break the two-dimensional image plane. Depth is thus accentuated and explored. Supplemental GUI regions emanate from the 'bot' via slick transitional animations.

The cylindrical component of the 'bot' mimics an old-style mechanical TV channel indicator. The action of 'flipping' channels is reflected in the rotation of channel numbers around the cylinder. Also, if a thumb-wheel input device is ever used, the action of using the wheel will be reinforced by the rotation of the cylinder.

In this sequence of storyboards, current program information is displayed through progressive user interaction. Any menu or information may expand out of the 'bot'.

Interactive controls may include one or more of the following:

Cursor up/down = channel +/-

Cursor -> current program info ==> future program listing

Cursor <- backtrack through program listings history

### **Figures 15-20**

Upon accessing the menu button (or other suitable control), the screen is enveloped by a smooth rotation of four panels gliding into position upon each other, with clearly delineated areas of navigation. These areas may include:

Upper Left: MSO branding and date/time stamp information

Lower Left: Current viewing choice and sliding sub-menu

Lower Right: Persistent navigation items, identification, user and settings information.

Upper Right: Interactive TV navigation and sliding sub-menu navigation.

Although pictured with multiple sub-menus invoked, the behavior would be of a very helpful TVConcierge, each anchored and revealed in a smooth action

### **Figures 21-24**

Figures 21-24 present the viewer with interactive rings to navigate into and out of the ITV service. Once activated by the viewer, the UI flies in with sound and effects. The links roll in with the first Nav Ring and locks down. The viewer then navigates to the left or right to tune-in their selection. Once that selection is activated a second Nav Ring flies in and locks down presenting the viewer with

more navigation. The viewer continues this interaction with the UI until they reach their desire target destination. They then activate the UI and go to their desire location. Also, during the Nav Ring navigation, the viewers may receive previews of where they are. This model also lets users orient themselves by letting them see where they've been and the choices ahead of them.

TO THE USER

TOP VIEW

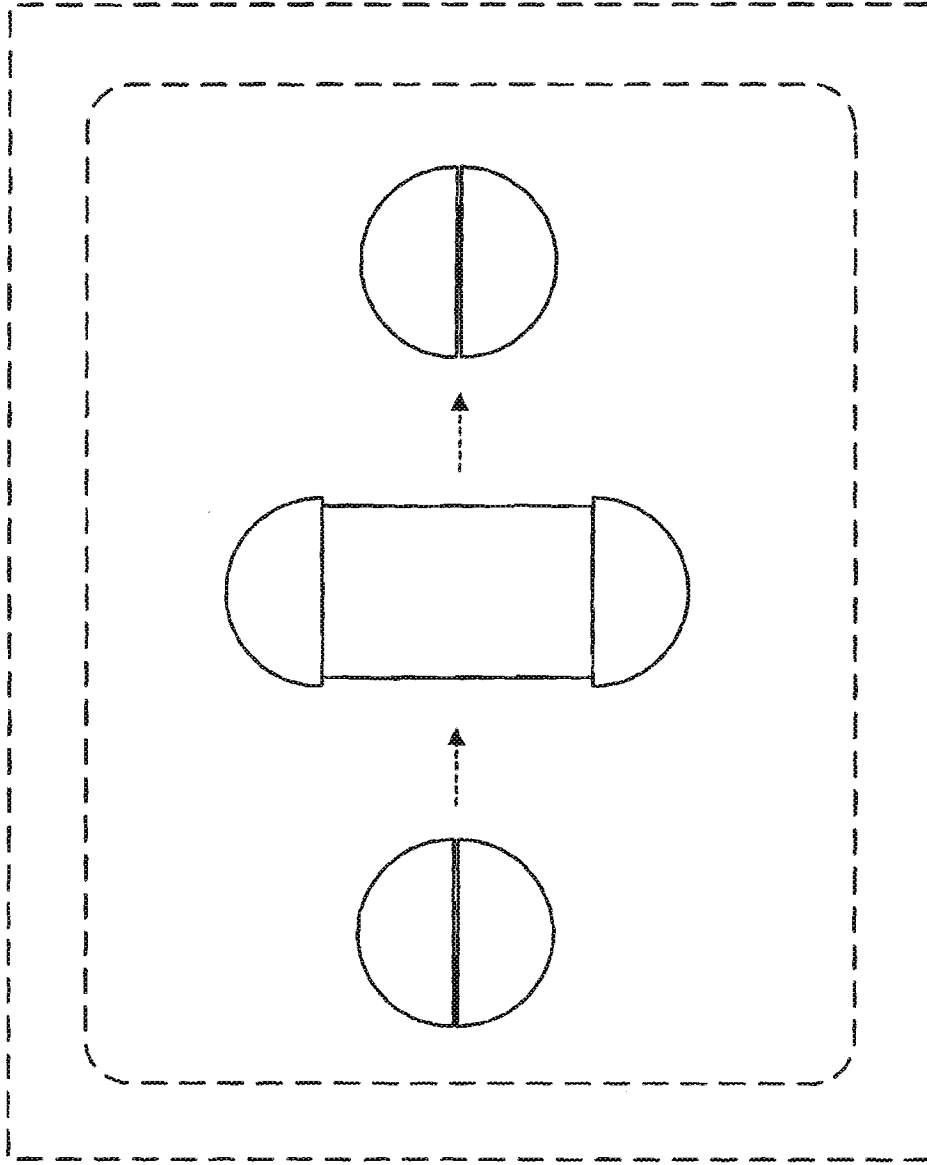


FIG. 1

FIG. 2

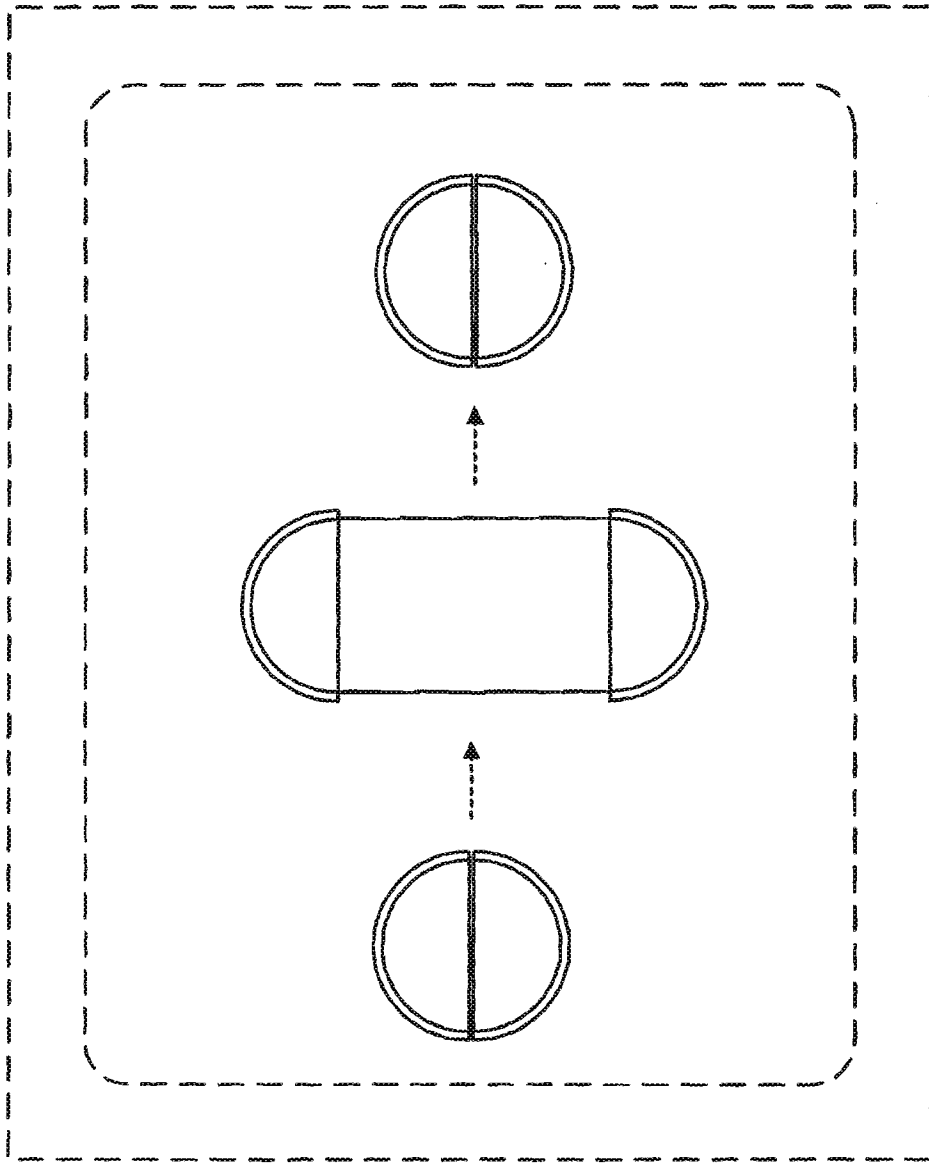


FIG. 2

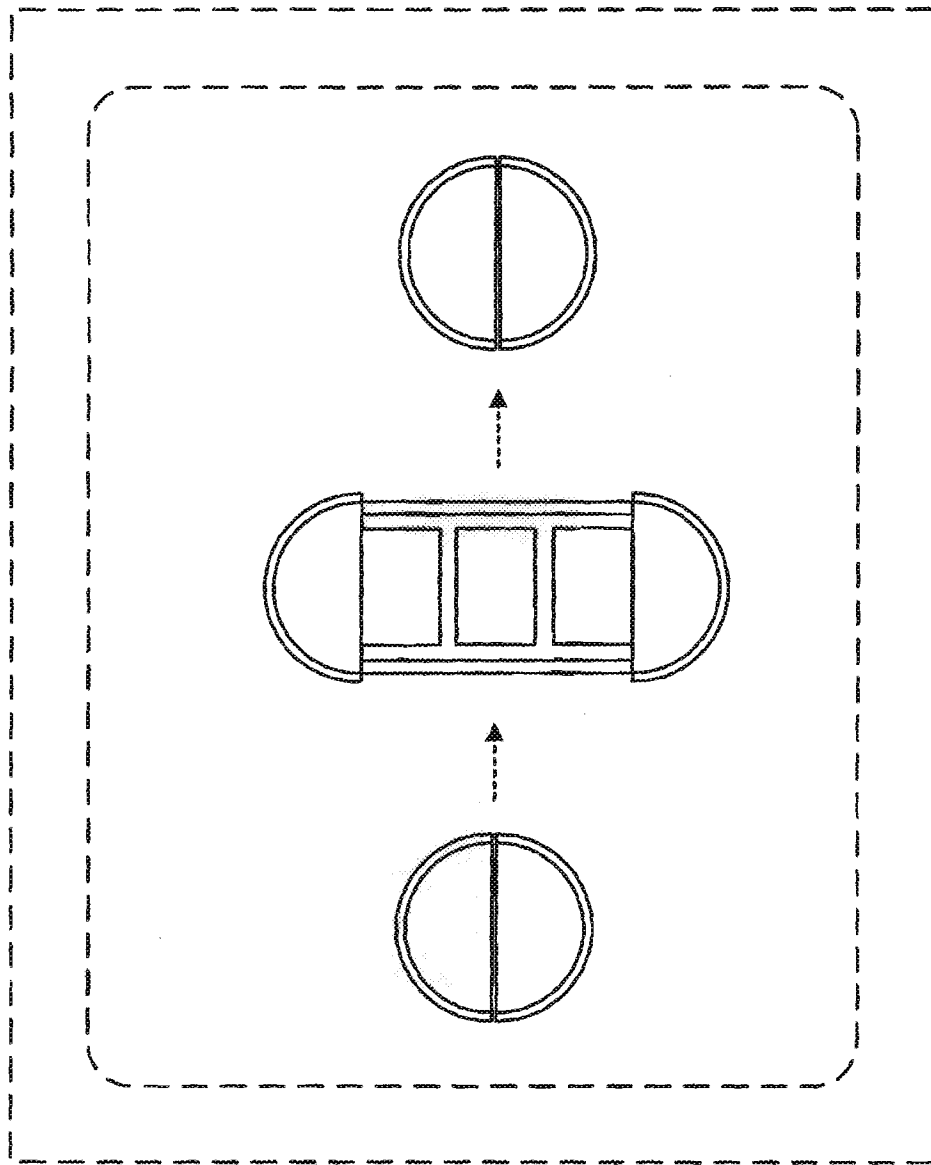


FIG. 3



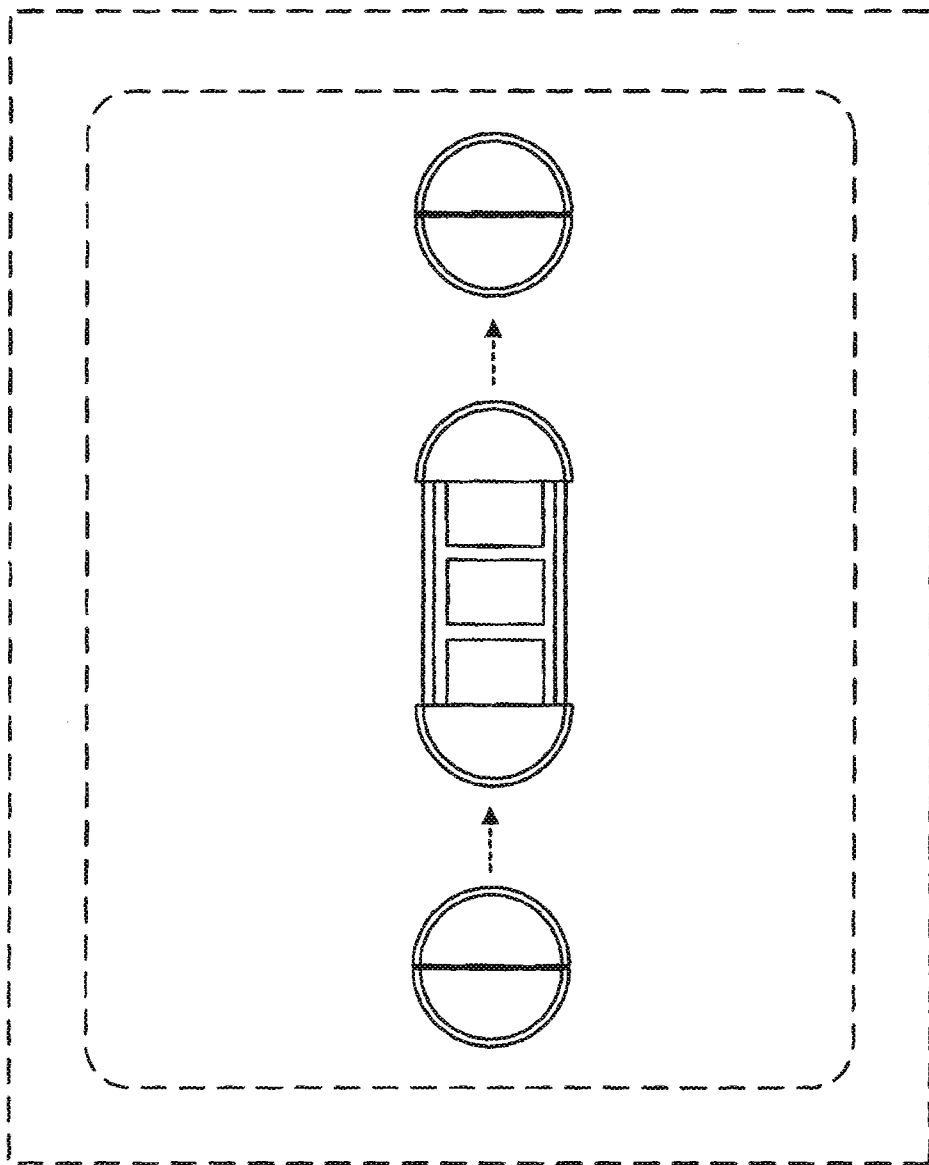


FIG. 4

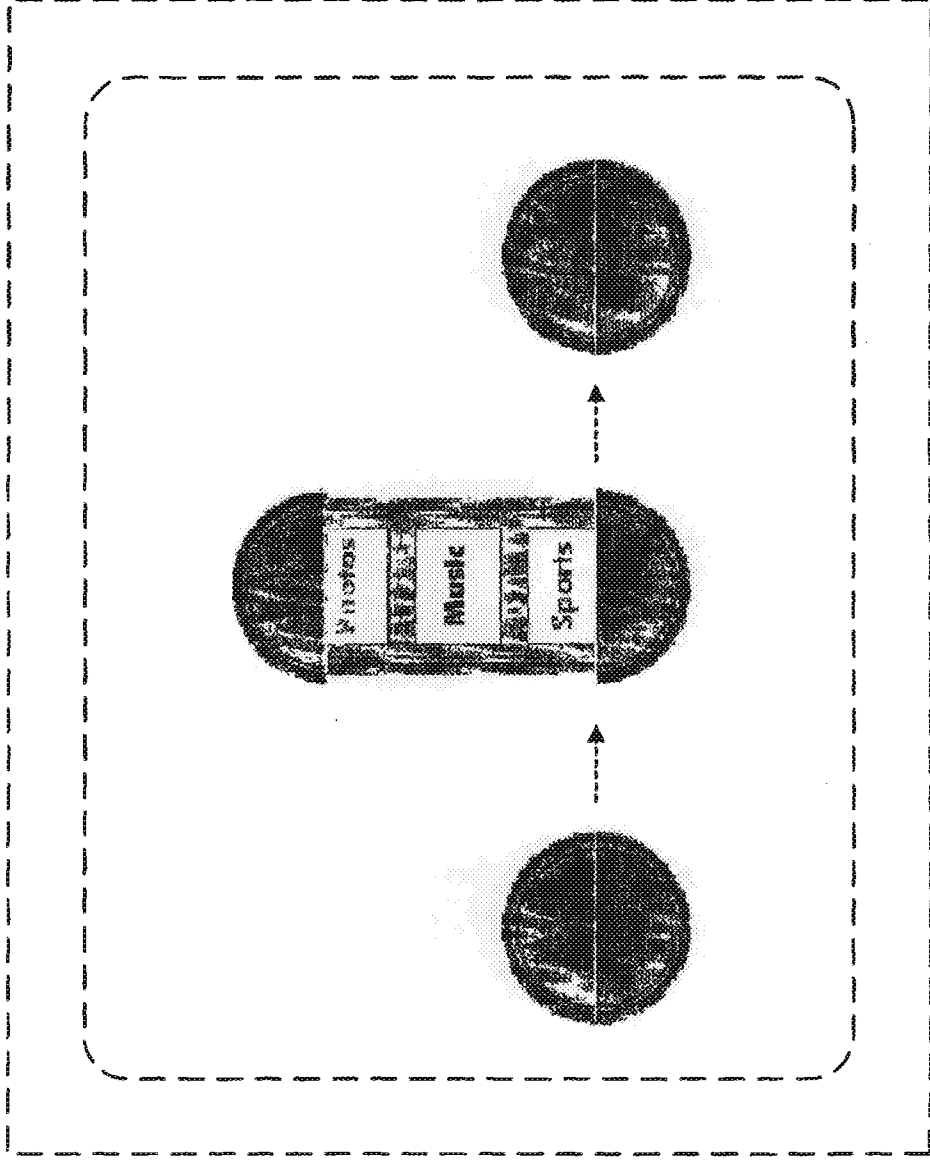


FIG. 5

FIG. 6

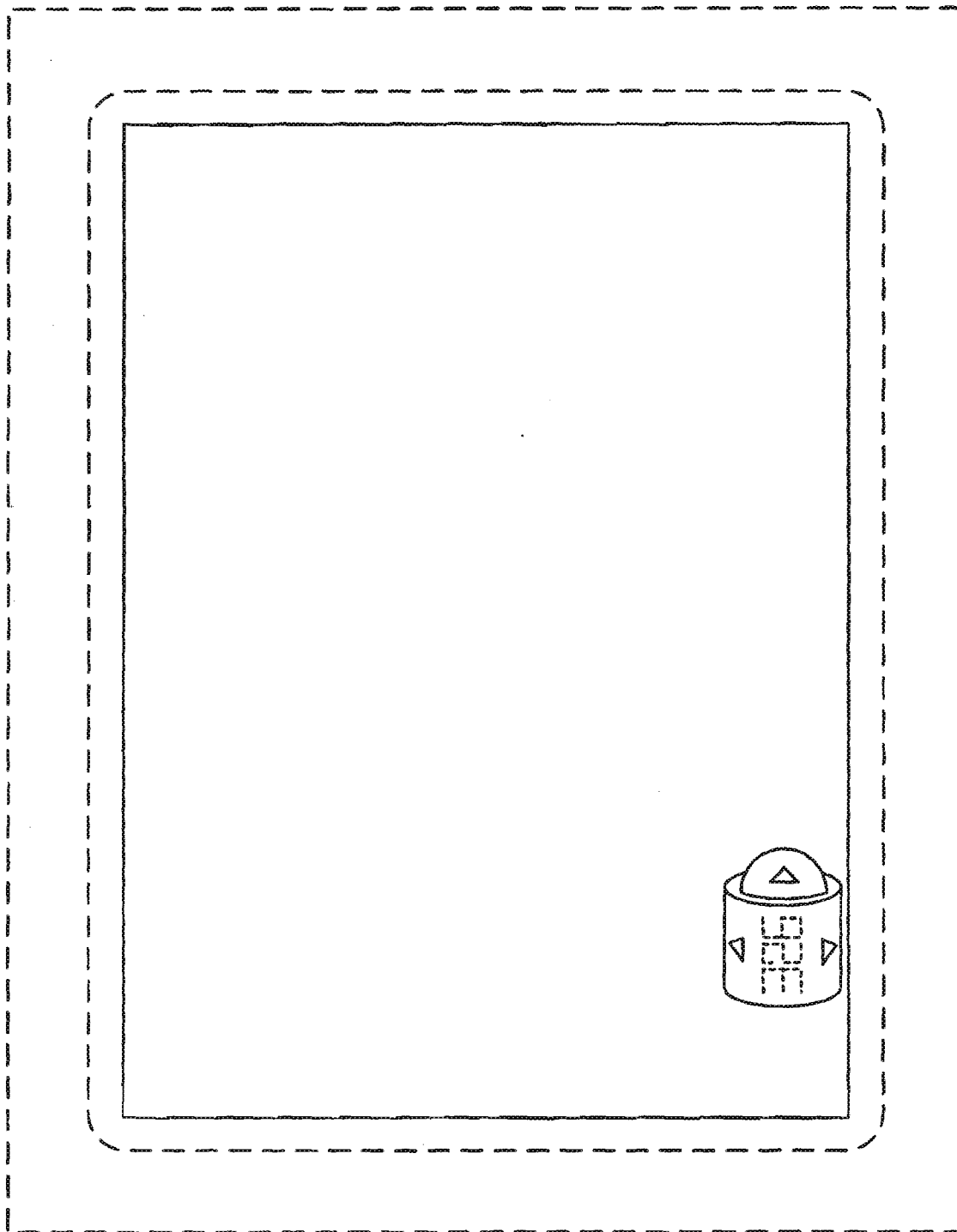


FIG. 6

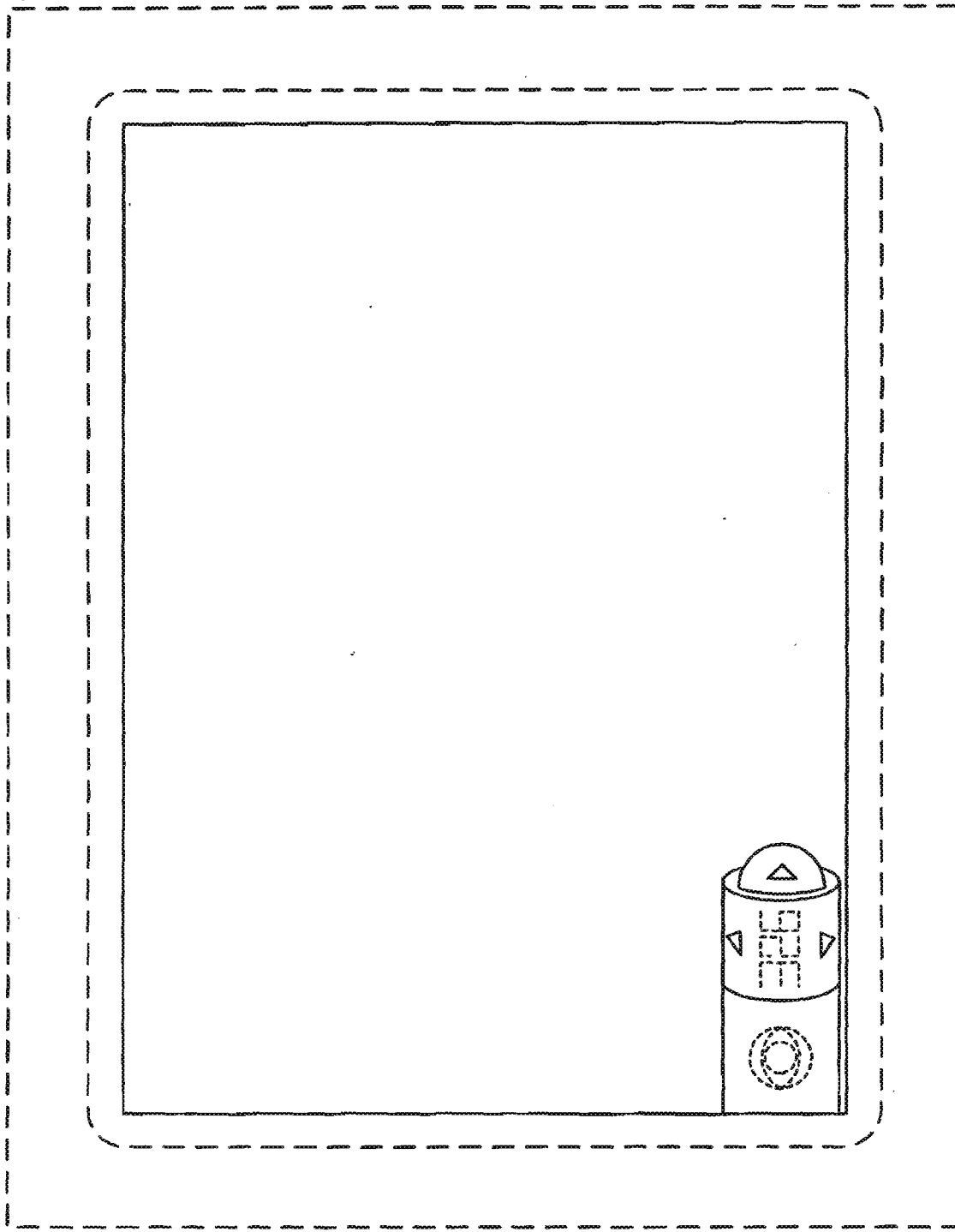


FIG. 7

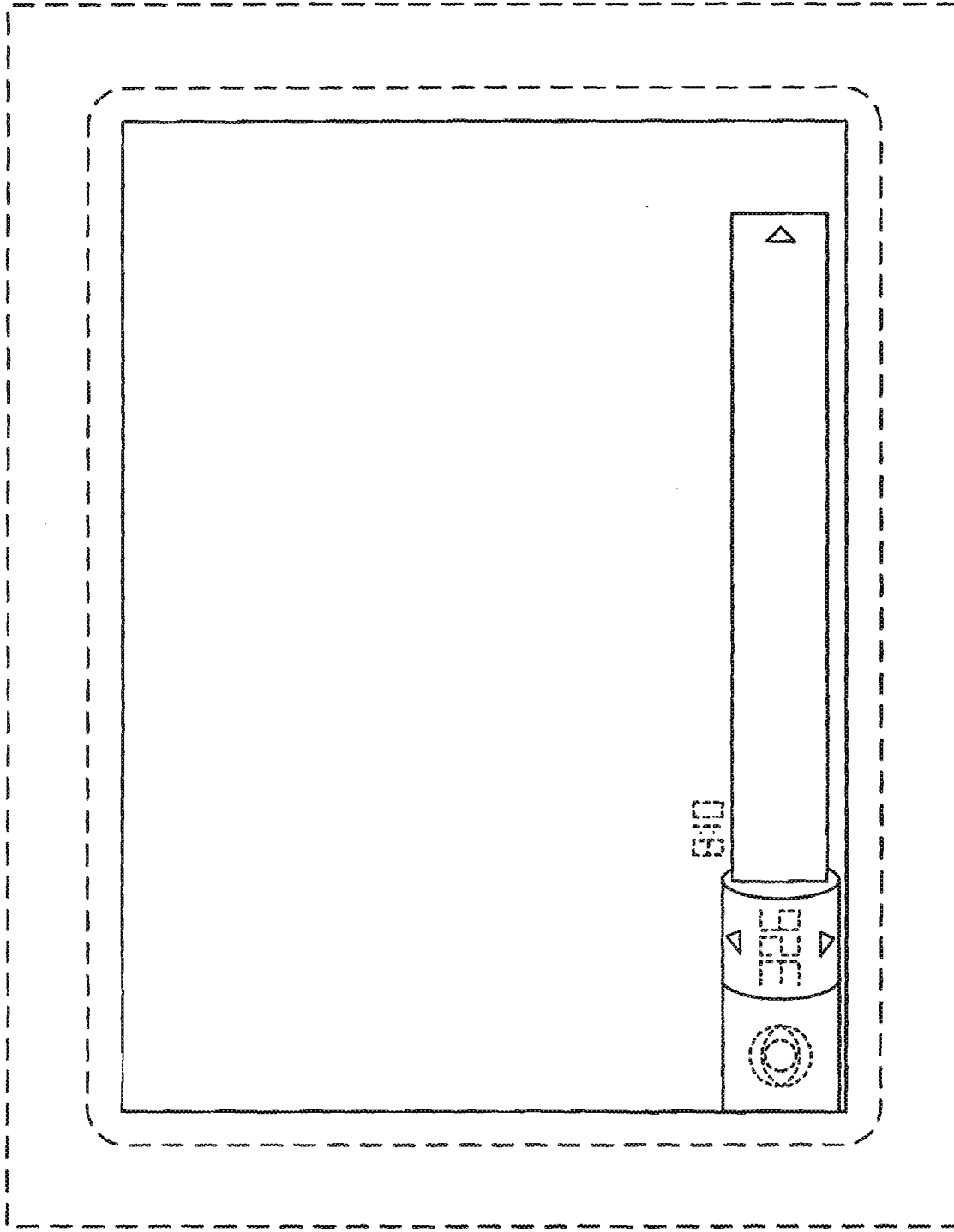


FIG. 8

FIG. 9

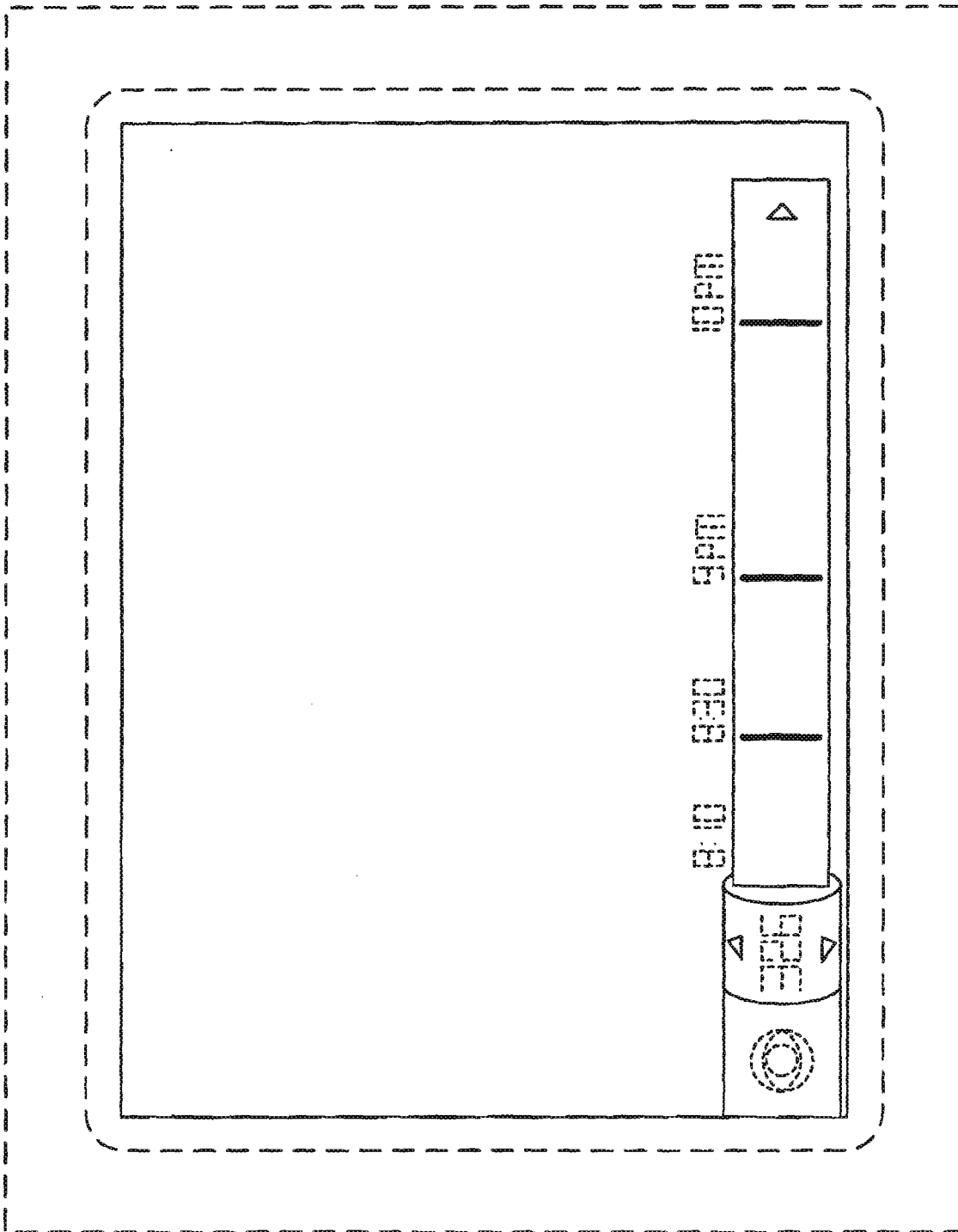


FIG. 9

FIG. 10

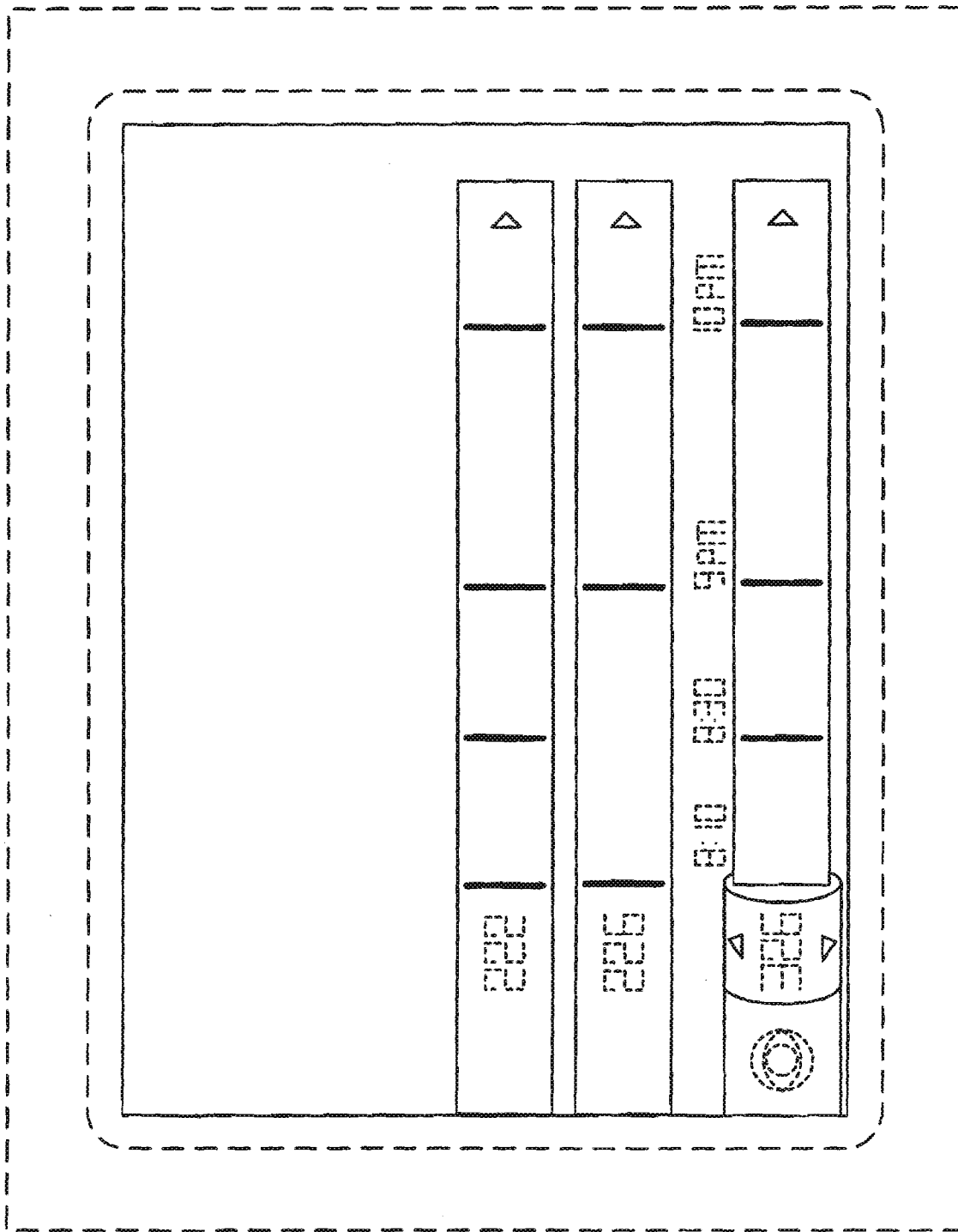


FIG. 10

FIG. 11



FIG. 11



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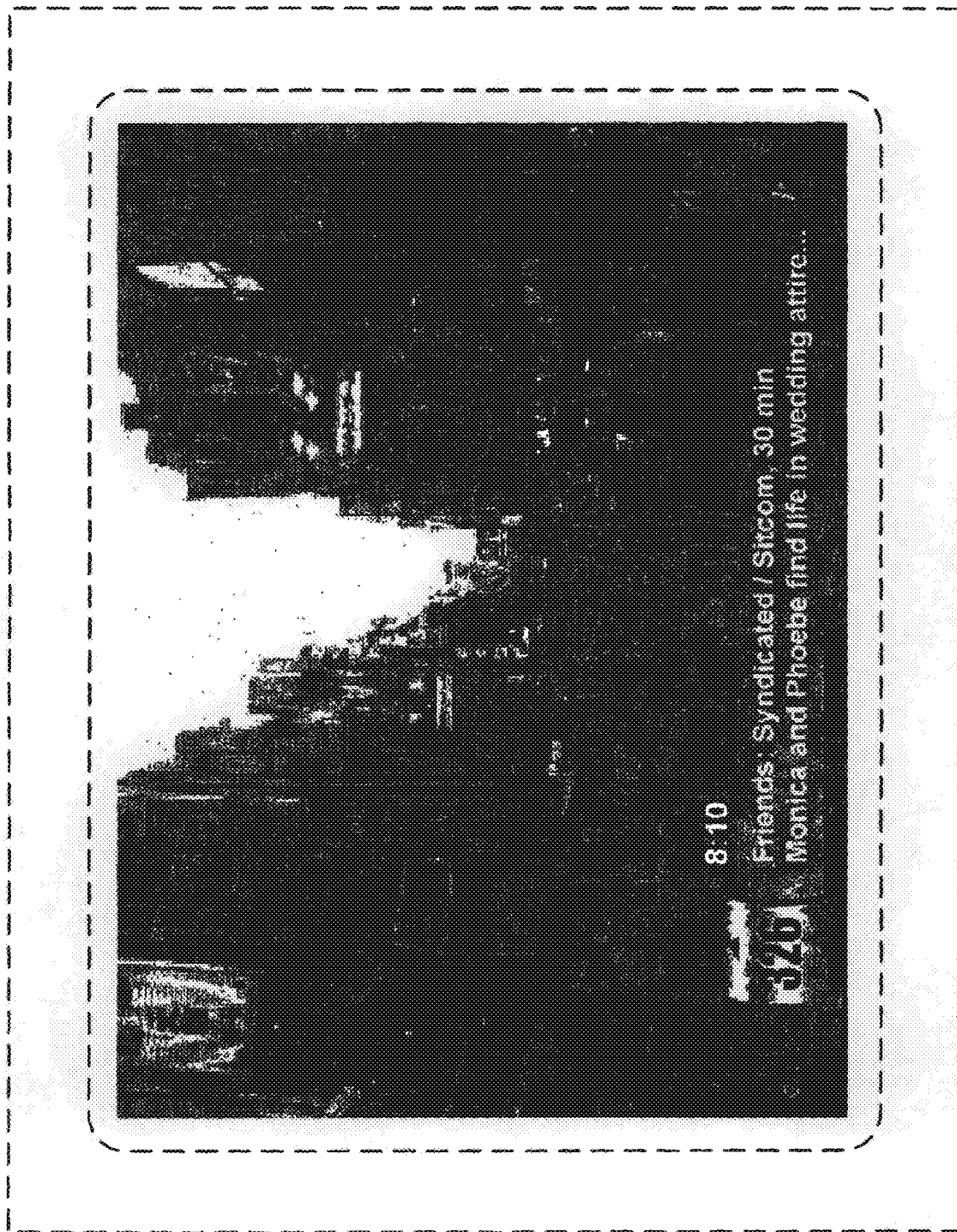


FIG. 12

FIG. 13

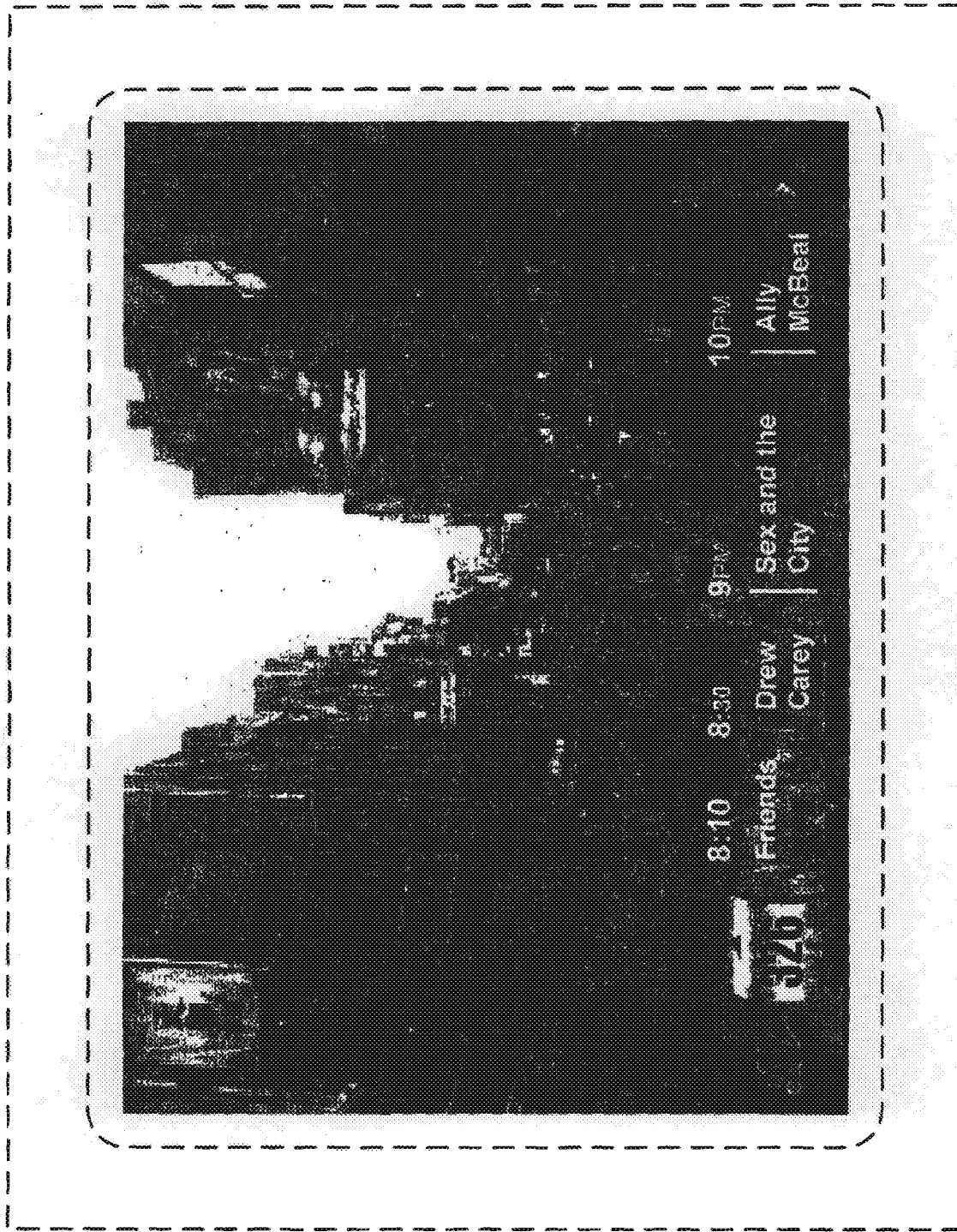


FIG. 13

FIG. 14

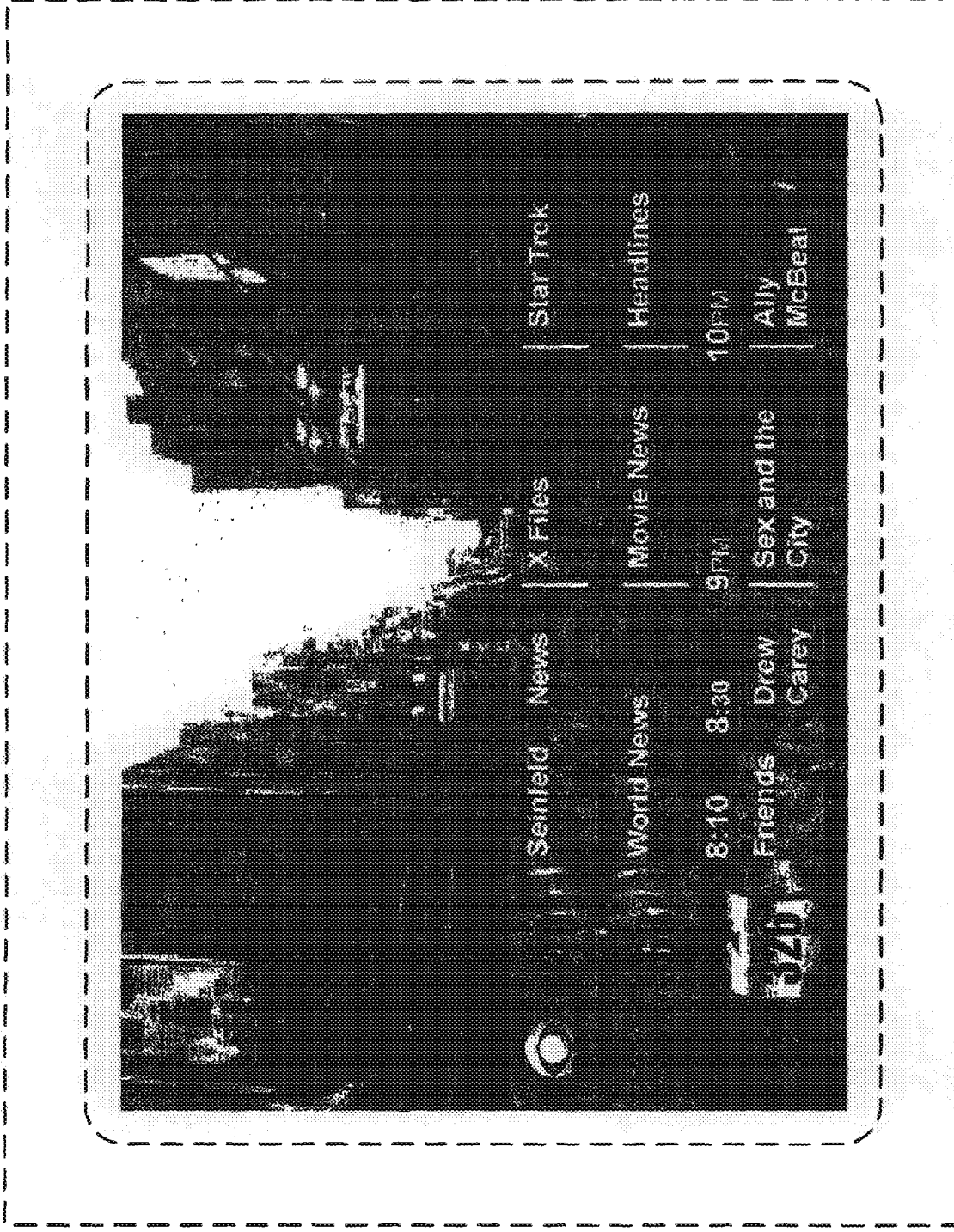


FIG. 14

FIG. 15

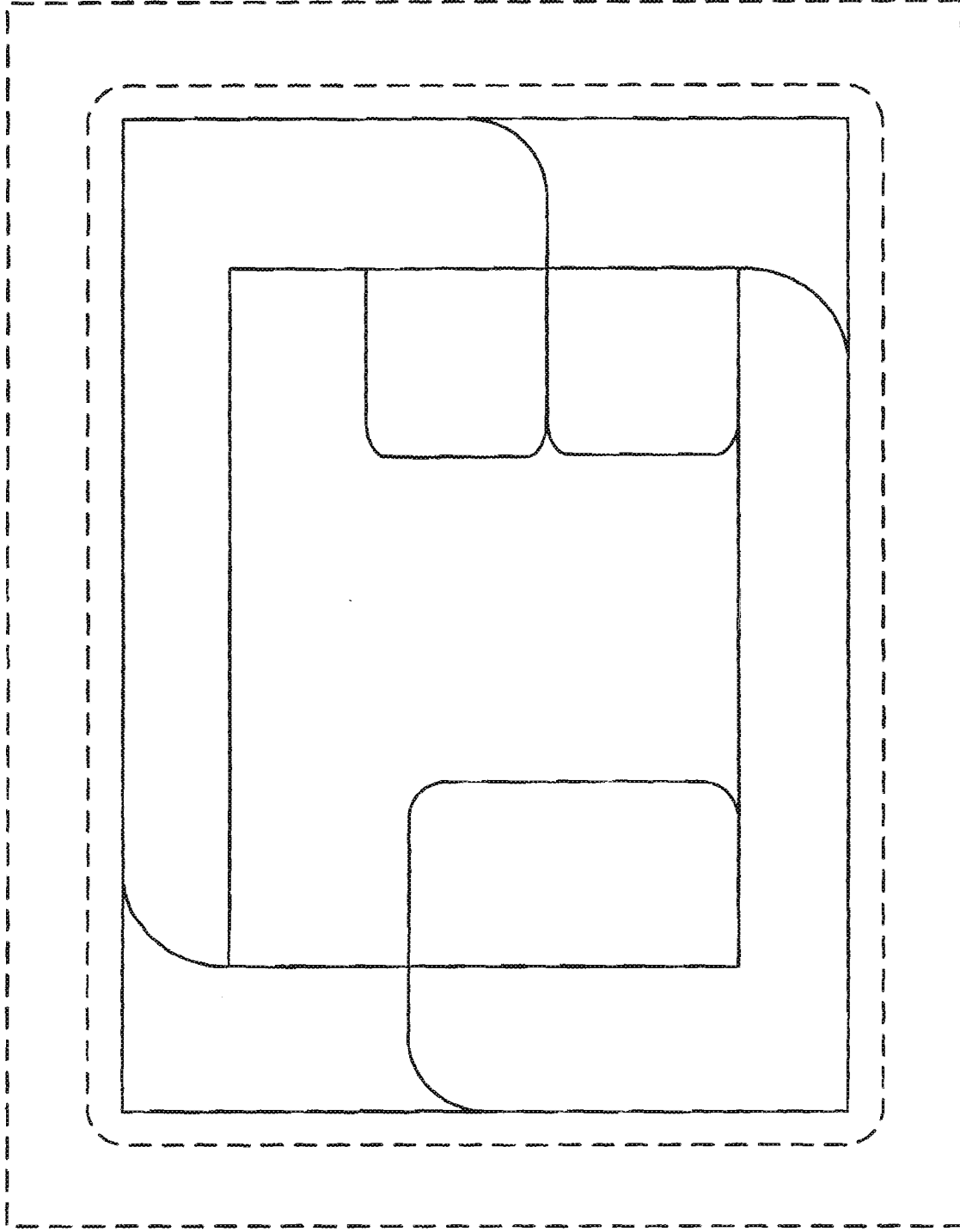


FIG. 15

FIG. 16

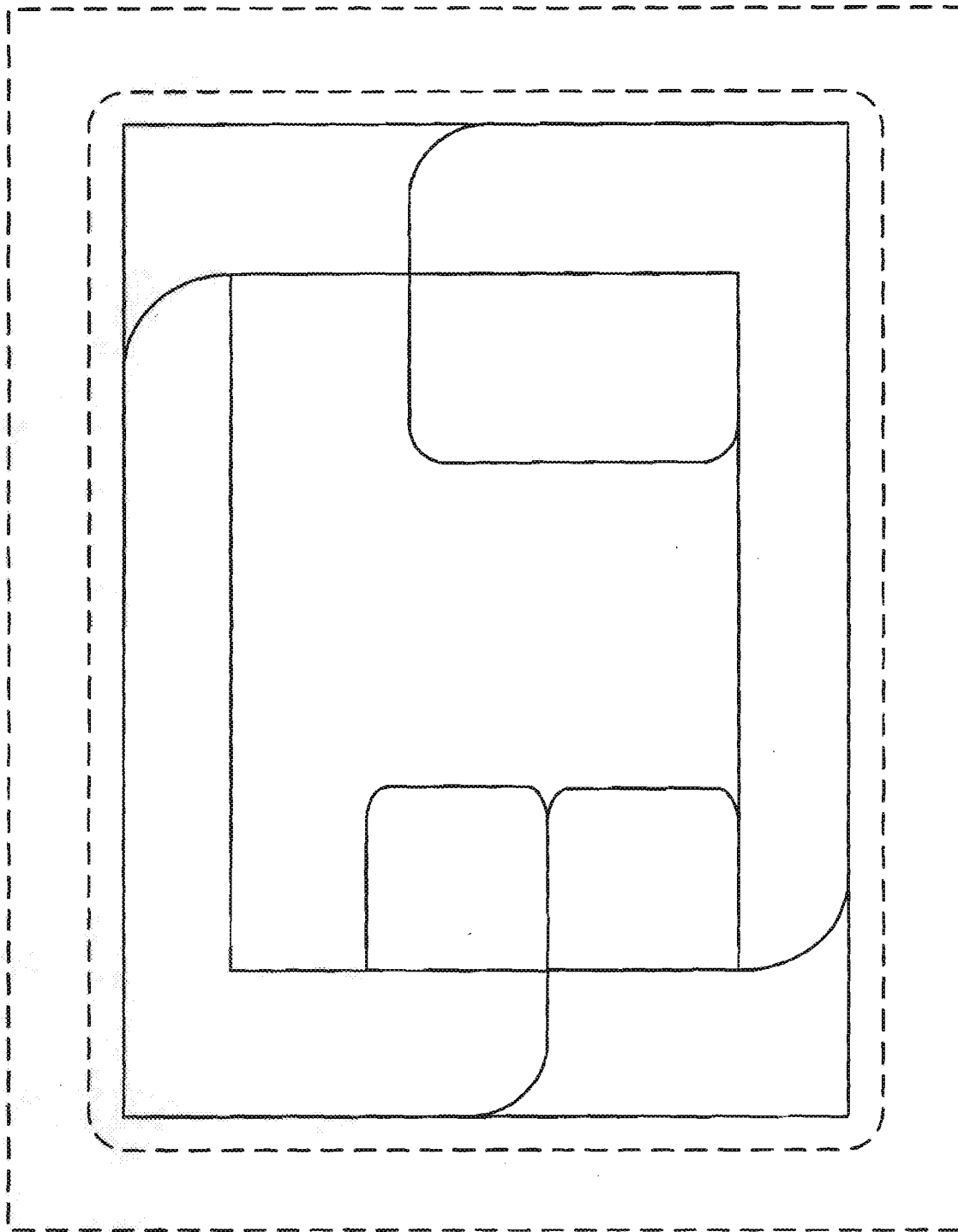


FIG. 16

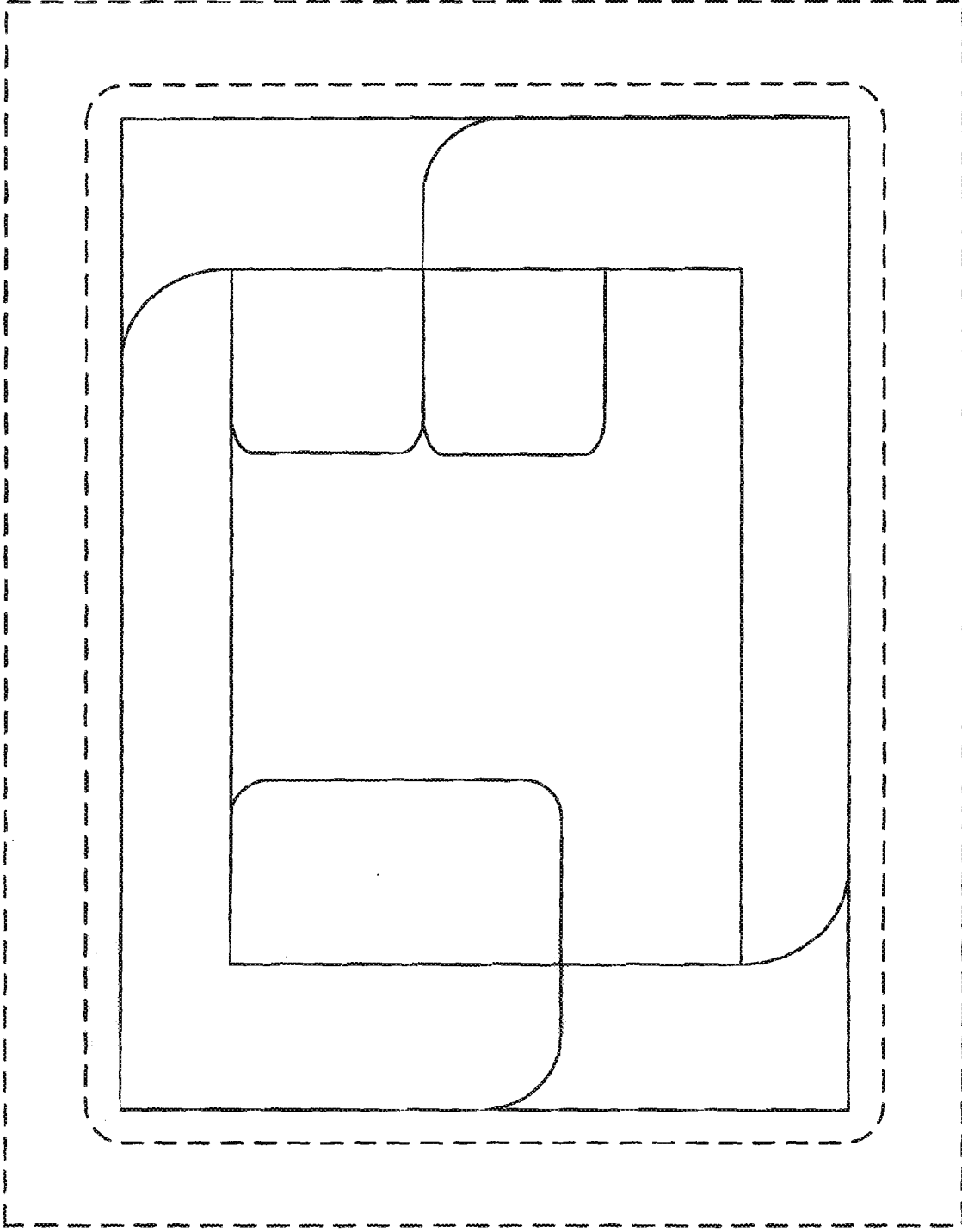


FIG. 17

FIG. 18

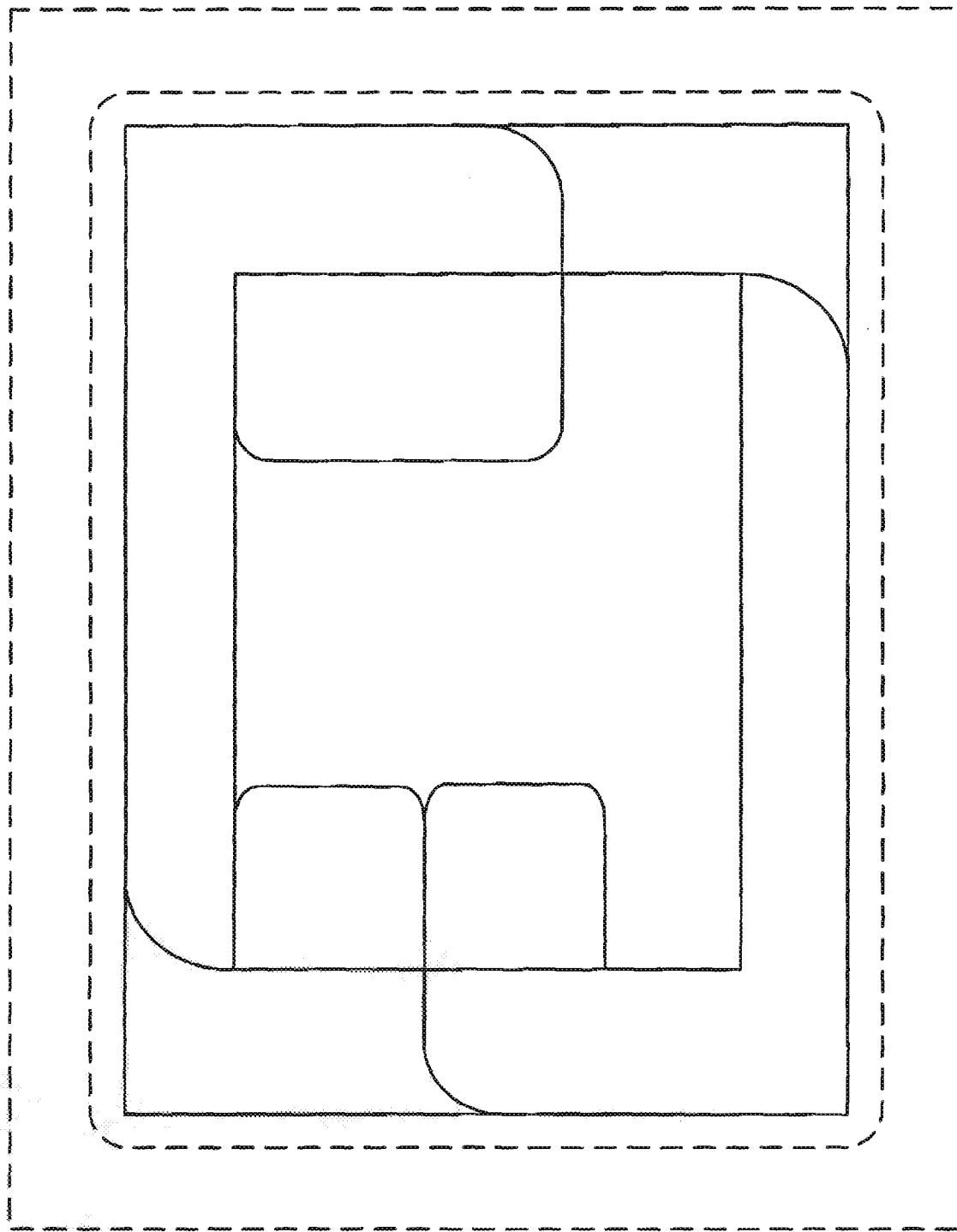


FIG. 18

FIG. 19

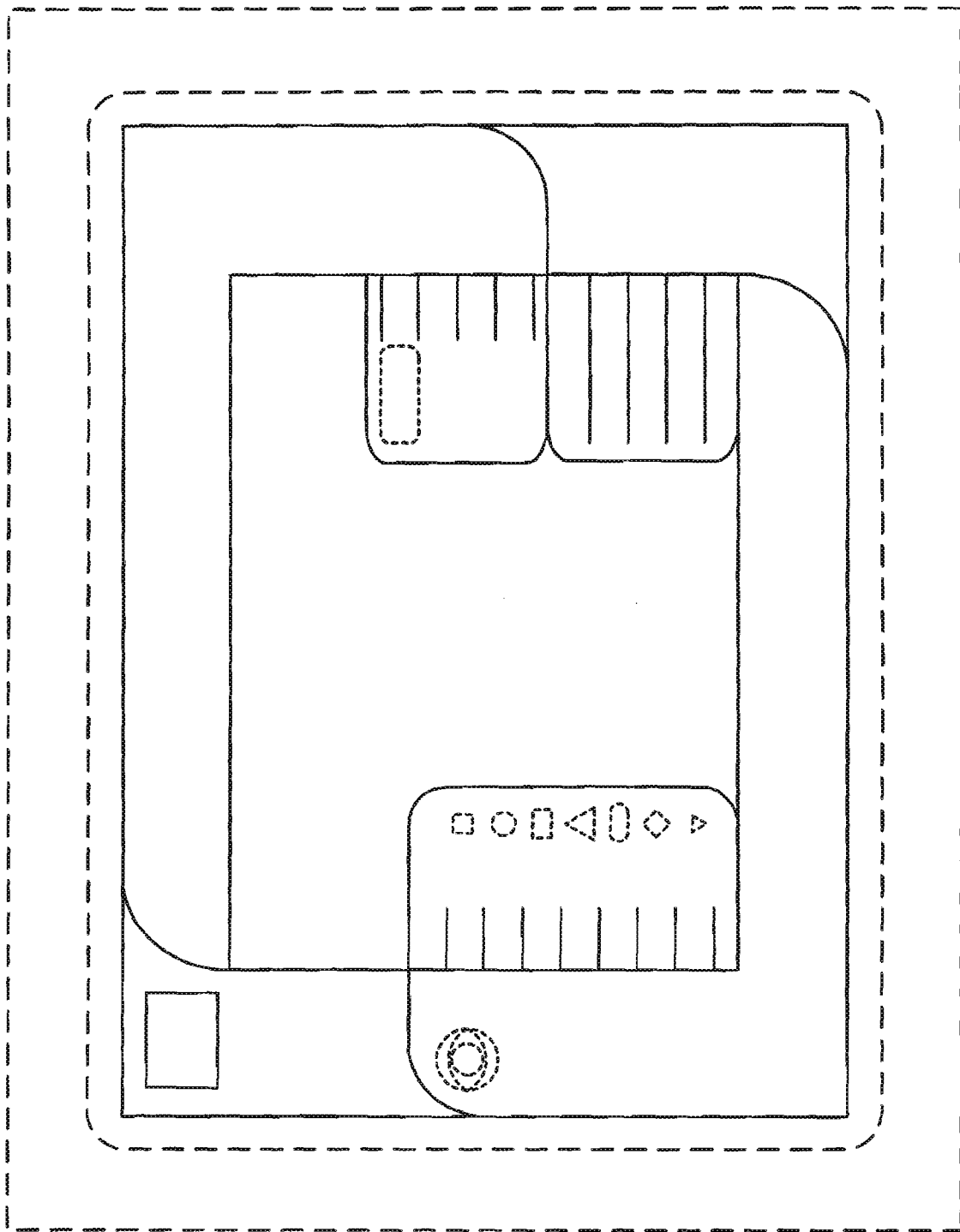


FIG. 19



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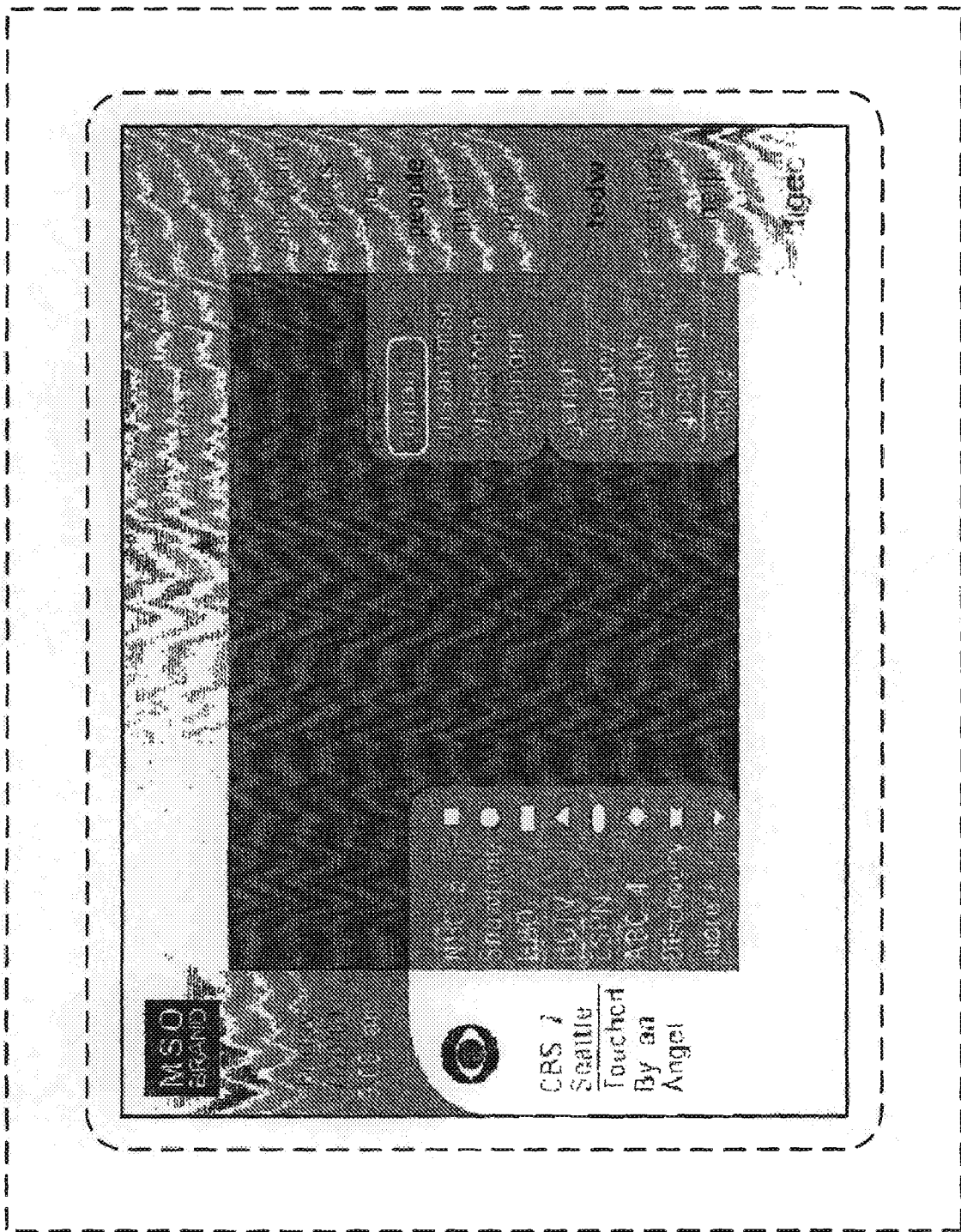


FIG. 20

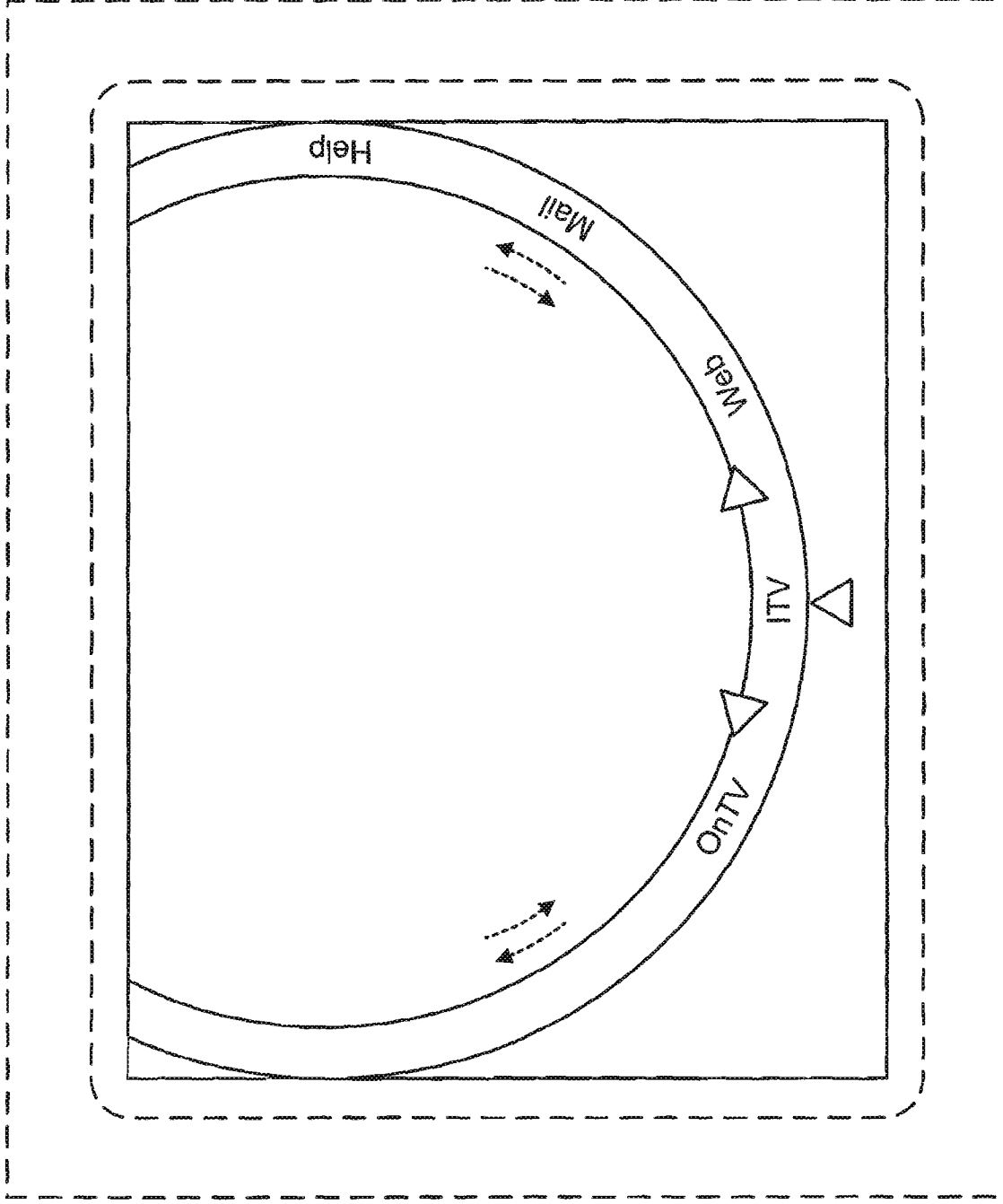


FIG. 21

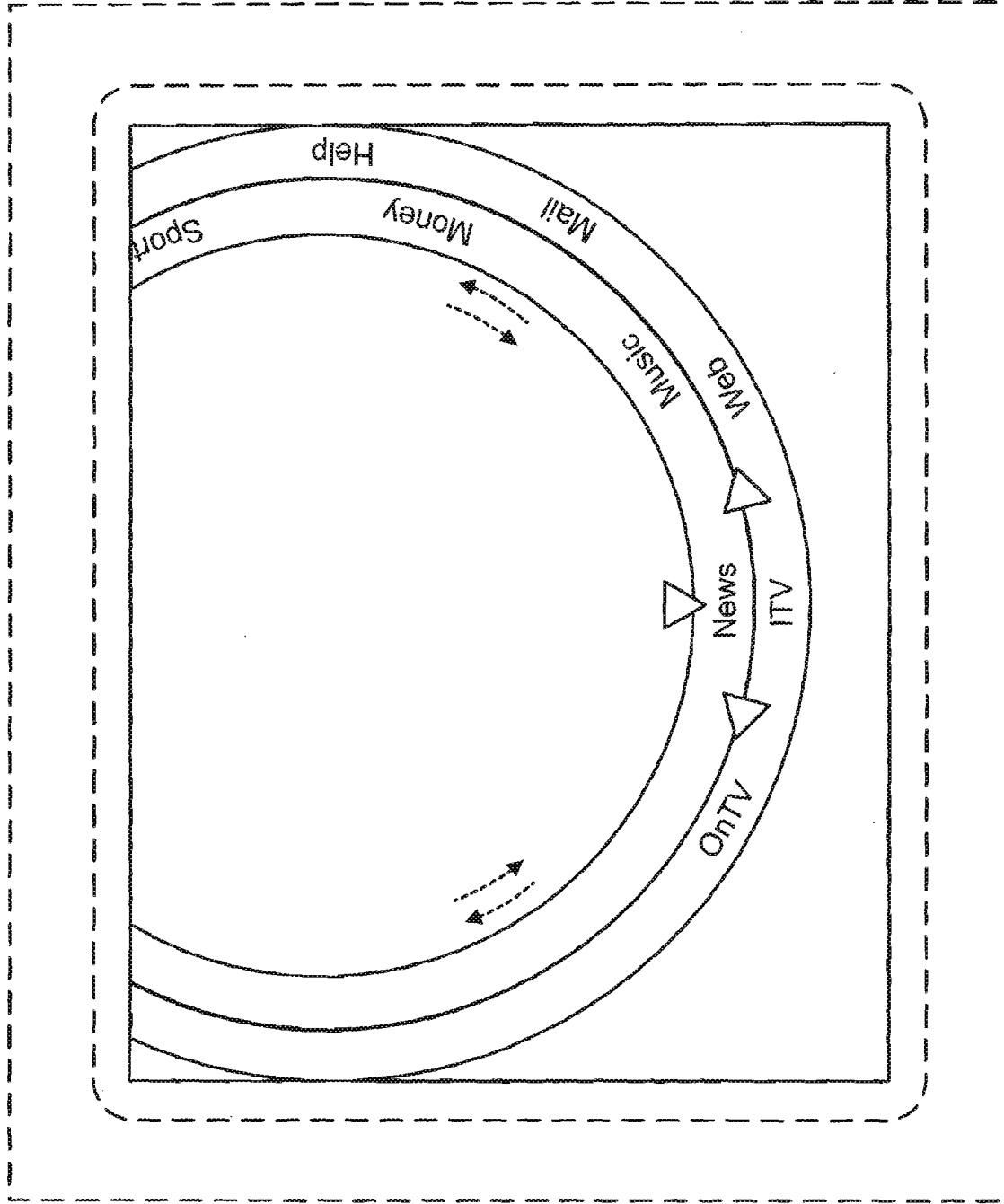


FIG. 22

FIG. 23

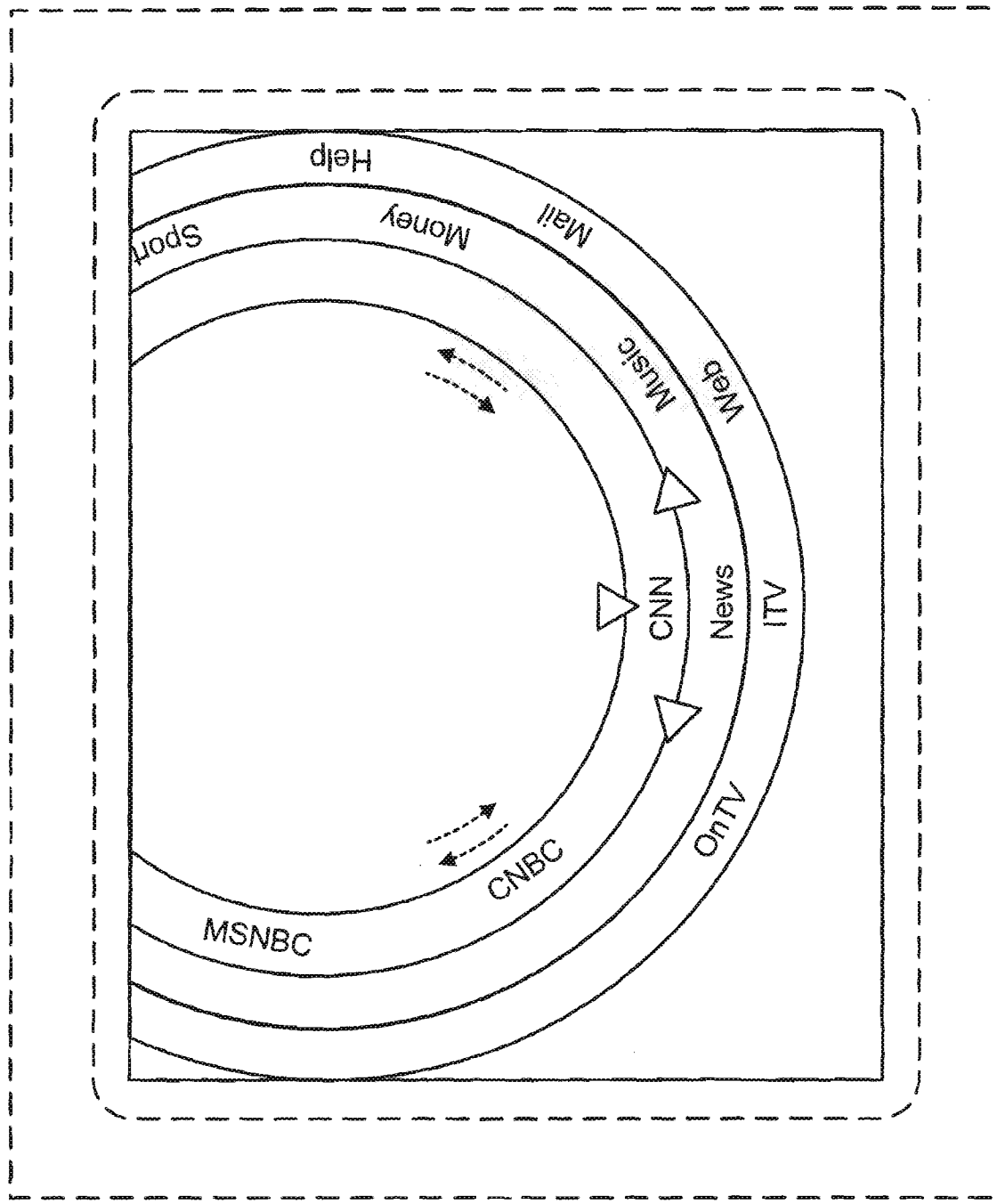


FIG. 23

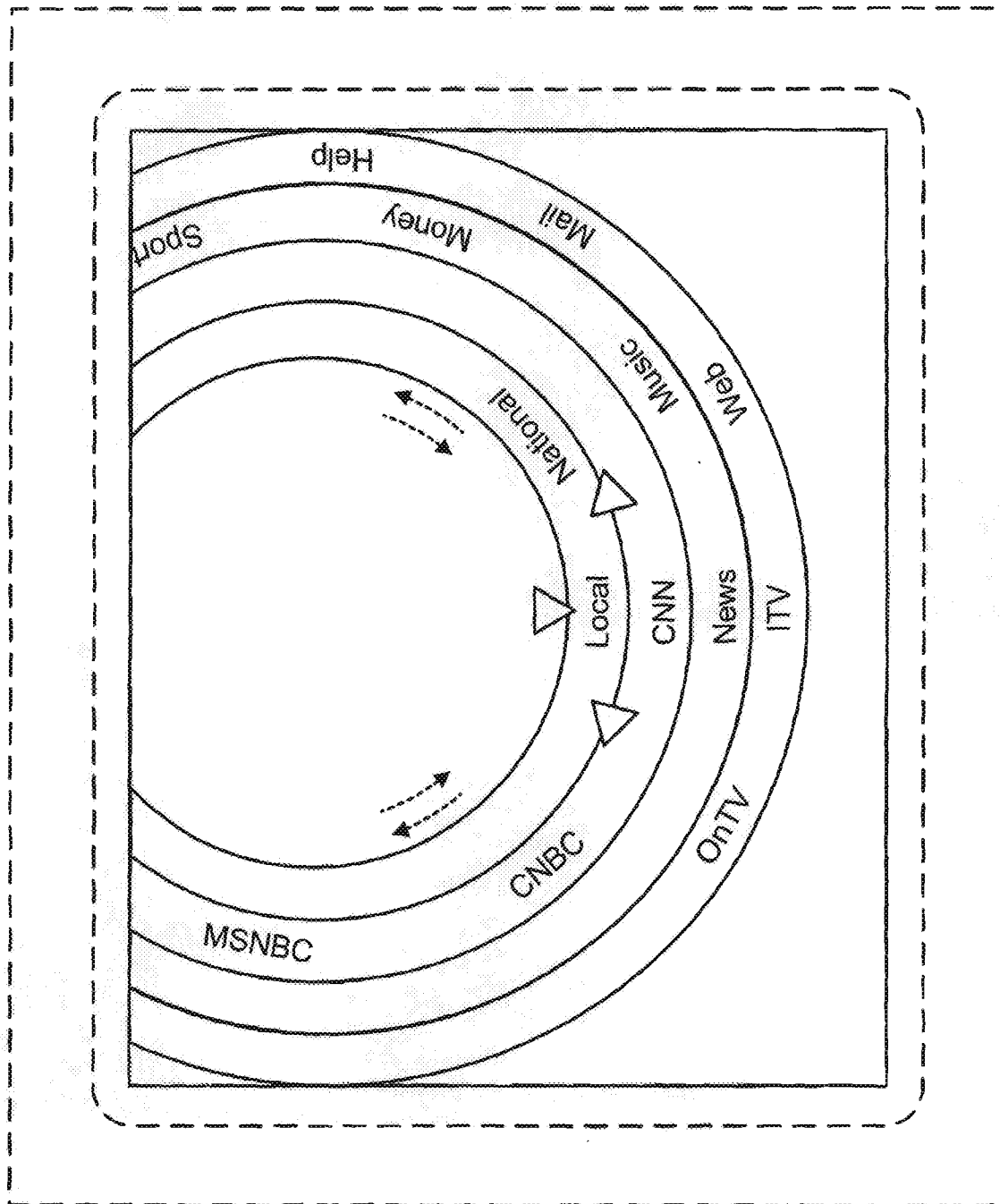


FIG. 24